

Claims

[c1] I claim:

1. A pelvis frame for hip-replacement surgery on a patient, the pelvis frame comprising:
 - a. a first rigid elongated member;
 - b. a second rigid elongated member mounted on the first rigid elongated member in a perpendicular relationship thereto;
 - c. first and second pads attached to the first rigid elongated member in a perpendicular configuration;
 - d. a third pad attached to the second elongated member in a perpendicular configuration;
and
 - e. means for varying position of the first, second, and third pads, and for fixating said position as required, for effecting orientation-determining contact of the first, second, and third pads with pelvic bone of the patient; the first, second, and third pads being contoured to conform to portions of the pelvic bone which said pads contact.

[c2] 2. The pelvis frame of claim 1, wherein the first and second pads include openings for insertion therethrough of

first and second wires used to determine the patient's orientation.

- [c3] 3. A pelvis level for hip-replacement surgery on a patient, the pelvis level comprising:
 - a. a housing which includes first and second parallel straight-line openings extending therethrough, for insertion therein of first and second wires used to effect temporary connection of the housing to pelvic bone of the patient; and
 - b. a level, disposed in the housing under a transparent cover, for determination of a level position of the housing.
- [c4] 4. The pelvis level of claim 3, wherein the pelvis level is a bubble level comprising a liquid including a bubble, disposed under a convex transparent cover.
- [c5] 5. The pelvis level of claim 3, wherein the pelvis level is a ball level comprising a ball disposed on a concave surface between the transparent cover and the concave surface.
- [c6] 6. The pelvis level of claim 5, wherein the ball, the cover, and the housing are made of a material capable of withstanding steam sterilization.
- [c7] 7. A method for determining orientation of pelvic bone

of a patient undergoing hip-replacement surgery, the method comprising the steps of:

- a. providing a pelvis frame comprising a first rigid elongated member; a second rigid elongated member mounted perpendicularly on the first rigid elongated member; first and second pads attached perpendicularly to the first rigid elongated member; a third pad attached perpendicularly to the second rigid elongated member; and means for varying position of the first, second and third pads, and for fixating said position as required, for effecting orientation-determining contact of the first, second, and third pads with the patient undergoing the surgery;
- b. providing a pelvis level including a level disposed in a housing which includes first and second parallel straight-line openings extending therethrough;
- c. adjusting the pelvis frame so that the first and second pads rest on the anterior superior iliac spines of the patient undergoing the surgery;
- d. adjusting the pelvis frame so that the third pad rests on the pubic symphysis of the pelvic bone of the patient undergoing the surgery;
- e. drilling first and second wires into the anterior superior iliac spines through first and second openings in the first or second pad contacting the anterior superior iliac spine on the side on which the surgery is to be per-

formed;

- f. removing the pelvis frame from contact with the patient;
- g. turning the patient from back contact to side contact with an operating-room bed;
- h. beginning the hip-replacement surgery;
- i. at a point during the surgery that acetabular component in the pelvic bone is to be replaced, sliding the pelvis level over the first and second wires through the first and second openings in the first or second pad on the side on which the surgery is being performed;
- j. adjusting position of the operating-room bed as required until the pelvis level indicates level position; and
- k. replacing the acetabular component in the pelvic bone.

- [c8] 8. The method of claim 7, wherein the pelvis level is a bubble level comprising a liquid including a bubble, disposed under a convex transparent cover.
- [c9] 9. The method of claim 7, wherein the pelvis level is a ball level comprising a ball disposed on a concave surface between the concave surface and a transparent cover.
- [c10] 10. The method of claim 9, wherein the ball, the cover, and the housing are made of a material capable of with-

standing steam sterilization.